The Royal College of Anaesthetists

The College of Emergency Medicine

The Royal College of Physicians

The Royal College of Physicians of Edinburgh

The Royal College of Physicians and Surgeons of Glasgow

The Royal College of Surgeons of Edinburgh

The Royal College of Surgeons of England

Edition 3

August 2011

Curriculum for a CCT in

Intensive Care Medicine

The Faculty of Intensive Care Medicine

Preface

This, the 3rd edition of *The CCT in Intensive Care Medicine,* is the first edition to encompass a full, standalone CCT programme for ICM in the UK. As such, it replaces all previous editions of the prior Joint CCT in ICM. It has been revised to align with *Standards for Curricula and Assessment Systems*, GMC, London, 2010.

In 2007 the titles of trainees changed with the introduction of Modernising Medical Careers [MMC] and they changed again in 2008. The term Specialty Registrar [StR] is used throughout this curriculum to encompass trainees who may still be in Fixed Term Specialty Training Appointments [FTSTA] and those with contracts as Core Trainees [CT] and Specialist Registrars [SpR].

ST1 = CT1 = FTSTA 1
ST2 = CT2 = FTSTA 2
ST3 = SpR1 = FTSTA 3
ST4 = SpR2
ST5 = SpR3
ST6 = SpR4
ST7 = SpR5

Abbreviations

A list of commonly used abbreviations is provided in Appendix 1.

Trainee registration

All trainees are required to register with the Faculty as soon as possible after starting their ICM CCT training, via submission of an FICM Membership Application Form (available at www.ficm.ac.uk).

Copies of the Annual Review of Competence Progression [ARCP] should be forwarded to the Faculty by the respective deanery and will be held along with any correspondence related to the individual trainee's training. A Certificate of Completion of Training [CCT] date will be estimated, usually upon entry to Stage 2 training, and in conjunction with the partner specialty college if for dual CCTs. This is altered if the necessary competencies and assessments (including examinations) are not obtained or other circumstances prevail (such as sick leave or maternity leave) by the expected date.

Advice

The first point of contact for information concerning a trainee's training or career planning is this curriculum and the FICM website, www.ficm.ac.uk.

The next point of contact is the Faculty Tutor of the department in which the trainee is working. If the Faculty Tutor is unable to give the necessary guidance then the Regional Advisor should be asked for advice.

Only if the Faculty Tutor or Regional Advisor cannot help should a trainee contact the Faculty directly for advice because inevitably the Faculty will have no knowledge of the trainee's personal circumstances.

Delivery of the single Intensive Care Medicine curriculum and assessment system

Approved by the GMC on 5 October 2011 and applicable for trainees entering training from August 2012.

This note sets out the GMC's way forward in relation to the single Intensive Care Medicine CCT curriculum and assessment system.

1. The GMC will approve the single ICM curriculum and assessment system subject to the transition arrangements from the 'joint' to the single ICM curriculum having been clarified by the Faculty of Intensive Care Medicine.

2. Entry into the current 'joint' Intensive Care Medicine [ICM] (2007 and 2010 curricula versions) curricula and assessment systems will cease on 31 July 2013. The 'joint' curriculum will remain approved by the GMC until all trainees have exited training.

3. Existing trainees on the 'joint' ICM curriculum will continue if they wish to do so. Trainees wishing to move from the 'joint' ICM curriculum to the single ICM curriculum will have to resign their joint CCT appointment and reapply for the new programme.

5. The GMC confirms that for the new single ICM curriculum, in order to be awarded a CCT, entry into specialty training will be through Core training in anaesthetics, acute care common stem and core medicine. Those trainees who wish to enter from a surgical route will need to follow the CESR[CP] route or re-enter through an approved core specialty.

6. The curriculum and assessment system for the single ICM specialty needs to be approved by the GMC to provide equivalence routes for doctors not in CCT programmes including CESR[CP] trainees.

7. Recruitment to the single ICM curriculum must begin in winter 2011.

8. Assessment through the full CESR route will begin as soon as the curriculum is approved by GMC.

9. From winter 2011 trainees already enrolled in a specialty training programme that meets the core requirements for entry into ICM can apply for the new 2011 ICM programme leading to a CCT, providing they have not completed more than 18 months of that CCT at the time of starting the second. If appointed, their training will be recognised through the CCT route for both specialties. This is on the proviso that, for the purposes of dual CCTs, the GMC would recognise the relevant programme(s) and would allow trainees entering later to have those competences recognised for the award of the CCT in the same manner as trainees starting both programmes simultaneously at ST3. In effect, the GMC has agreed that it is possible for trainees to be appointed and to start either specialty component (defined in section 2.2.1 of *Part I* of this curriculum) of a dual CCT up to 18 months after the beginning of higher specialty training in the first CCT. These individuals would then receive a CCT in both specialties once they had completed training, achieved all the necessary curriculum competences and the assessments in both specialties. Both CCTs will need to be awarded at the same time.

10. Trainees wishing to obtain dual certification in another CCT specialty and in the single ICM specialty will be able to obtain a proportion of the other specialty competences and assessments during ICM training, and vice-versa. The shared competences and forms of assessment have been identified by a joint working group between the relevant college (i.e. JRCPTB, Royal College of Anaesthetists and the College of Emergency Medicine) and the FICM, and are documented in the dual CCT guidance produced by the relevant college and the Faculty of Intensive Care Medicine, available online at www.ficm.ac.uk.

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Part I

The CCT in
Intensive Care Medicine

Handbook

The Faculty of
Intensive Care Medicine

Contents

1. Introduction

1.1 Aim

This document identifies the aims and objectives, content, experiences, outcomes and processes of postgraduate specialist training leading to a CCT in Intensive Care Medicine. It defines the structure and expected methods of learning, teaching, feedback and supervision.

It sets out what knowledge, skills, attitudes and behaviours the trainee will achieve. These are identified as learning outcomes that are specific enough to be a precise guide for trainers and trainees. A system of assessments is used to monitor the trainee's progress through the stages of training. The objective of the programme is to produce high quality patient-centred doctors with appropriate knowledge, skills and attitudes to enable them to practise at consultant level in ICM.

1.2 Definition of Intensive Care Medicine

Intensive Care Medicine [ICM], also referred to as critical care medicine, is that body of specialist knowledge and practice concerned with the treatment of patients, with, at risk of, or recovering from potentially life-threatening failure of one or more of the body's organ systems. It includes the provision of organ system support, the investigation, diagnosis, and treatment of acute illness, systems management and patient safety, ethics, end-of-life care, and the support of families.

1.3 History and development of the specialty

The training requirements of ICM reflect both its historic origins and subsequent developments. Intensive Care grew out of two basic patient-based needs. Firstly, it was recognised during the polio epidemics of the late 1950s and early 1960s that the management of large numbers of patients with acute respiratory failure was best managed in dedicated areas of the hospital. Secondly, the increasing complexity of surgical practice, again beginning in the 1960s, necessitated the creation of units which could offer more than limited recovery care. In 1970 a group of UK doctors working in intensive care formed the Intensive Care Society. At this stage there was no formal training programme in the United Kingdom.

In 1988 the Faculty of Anaesthetists of the Royal College of Surgeons formed a working party with representatives from the Royal Colleges of Medicine and Surgery to review training in ICM. This formed the Joint Accreditation Committee for Training in Intensive Therapy [JACIT]. Training posts were established in 14 centres which consisted of up to two years of training, post accreditation in a primary specialty.

In 1992 an Intercollegiate Committee was formed to develop a training programme which could be incorporated into parent specialty training in anaesthesia, medicine, or surgery. The recommendations were accepted in 1996 and the Intercollegiate Board for Training in Intensive Care Medicine [IBTICM] established to take forward these recommendations.

Specialty recognition for ICM was achieved in 1999 and a competency-based training programme, one of the first in the UK, developed. Blocks of ICM training to be taken at different stages of parent specialty training were described, comprising 3 months of Basic training, 6 months Intermediate and 12 months Advanced. In addition, a minimum of 6 months complementary specialty training was required, in medicine for anaesthetists, anaesthesia for physicians or both for surgeons. Successful completion of

this training for a trainee who had competed for entry to the training programme resulted in the award of a Joint Certificate of Completion of Training in a base specialty and ICM. This curriculum, whilst serving the development of the specialty of ICM well, did not fully describe a standalone training programme in ICM. Hence in 2010-11 the IBTICM and its successor the Faculty of Intensive Care Medicine [FICM] developed a single CCT in ICM in the UK.

Intensive Care Medicine is a specialty which over the last 30 years has matured to the point where a separate training programme is required. Service developments have seen the number of critical care beds expand along with the number of clinicians working in these units, and more recently the UK ICU Modernisation Agency programme recognised that severely ill patients were best cared for by multi-disciplinary, medical led teams that had expertise in ICM. From small beginnings in 1988 there are now an estimated 2000 consultants in the UK practicing in ICM. The vast majority of these consultants have Anesthesia as their base specialty but an increasing number have Medicine or Emergency Medicine as their base specialty.

1.4 The scope of Intensive Care practice

Intensive Care Medicine involves the combination of the ability to correct abnormal pathophysiology (support/care) whilst simultaneously making sure that the definitive diagnosis is accurately made and therefore that disease modifying therapy (definitive treatment/medicine) is applied.

ICM comprises a constellation of knowledge and practice – almost all of which is well represented in a variety of other specialties. The ICM specialist transcends the traditional borders of medical specialities bringing all these competences together in one specialist and in so doing develops a unique approach to critical illness.

Intensive Care Medicine specialists are therefore medical experts in:

- Resuscitation
- Advanced physiological monitoring
- Provision of advanced organ support (often multiple)
- Diagnosis and disease management in the context of the most gravely ill patients in the hospital
- Provision of symptom control
- Management and support of the family of the critically ill patient
- End of life care
- Collaboratively leading the intensive care team
- Coordination of specialist and multi-specialty input to complicated clinical cases in the unique context of intensive care.

These specialists are based in Intensive Care Units [ICUs] which are hospital areas in which increased concentration of specially trained staff and monitoring equipment allow more detailed and more frequent monitoring and interventions for a seriously ill patient. Whilst practitioners may be based in Intensive Care and High Dependency Units their range of referral practice includes most of the modern acute hospital. Within a single day, intensivists may find themselves involved in the care of patients ranging from the young to the very old; encompassing locations as diverse as the Emergency Department and the day case surgery unit.

The management of intensive care patients by doctors who are specialists in Intensive Care Medicine and whose primary function is the work of Intensive Care Medicine has been demonstrated to have a

significant beneficial influence on the outcomes for the patients with a decrease in mortality and a reduction of complications.[1]

1.5 Curriculum development process

This curriculum represents a revision and rewrite of the previous curriculum documents taking into account guidance from the following two authorities:

a. **The General Medical Council [GMC]** has developed and published a schedule of 17 specific standards with which a postgraduate medical curriculum must comply[2]. The FICM fully accepts these as representing good practice in curriculum and assessment development and this document fully embraces these principles.

b. **The NHS Litigation Authority [NHSLA]** is a Special Health Authority responsible for handling negligence claims made against NHS bodies in England[3]. The NHSLA has published standards expected of Trusts***. For training these emphasise the need for appropriate supervision and assessment, and the documentation of competencies.*** NHSLA standards on supervision are determined by the GMC through its Quality Framework. To assist employers, trainees and trainers to comply with this, the curriculum defines the competencies that have to be achieved and completed satisfactorily at each stage of training. Importantly, this Edition includes reference to minimum clinical learning outcomes that all trainees must achieve before progression to the next stage of training.

In terms of teaching and training, the following four Good Medical Practice Standards are key in the delivery of the ICM CCT:

15. Teaching, training, appraising and assessing doctors and students are important for the care of patients now and in the future. You should be willing to contribute to these activities.
16. If you are involved in teaching you must develop the skills, attitudes and practices of a competent teacher.
17. You must make sure that all staff for whom you are responsible, including locums and students, are properly supervised.
18. You must be honest and objective when appraising or assessing the performance of colleagues, including locums and students. Patients will be put at risk if you describe as competent someone who has not reached or maintained a satisfactory standard of practice.
19. You must provide only honest, justifiable and accurate comments when giving references for, or writing reports about, colleagues. When providing references you must do so promptly and include all information that is relevant to your colleague's competence, performance or conduct.[4]

Good Medical Practice sets out the principles and values on which good practice is founded; these principles together describe medical professionalism in action. Both trainees and trainers must be familiar with this guidance.

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1 Evaluation of modernisation of adult critical care services in England: time series and cost effectiveness analysis. Hutchings A, Durand MA, Grieve R, Harrison D, Rowan K, Green J, Cairns J, Black N. BMJ. 2009 Nov 11;339:b4353. doi: 10.1136/bmj.b4353.

2 *Good Medical Practice.* General Medical Council, 2009.

3 The Welsh Risk Pool and the Scottish Clinical Negligence and Other Risks (Non-Clinical) Indemnity Scheme [CNORIS] fulfil similar roles to the NHSLA. In Northern Ireland each Trust has its own risk assessment and negligence scheme.

4 *Good Medical Practice,* p.14.

In order to assist trainees in understanding the relationship between GMP and the ICM CCT syllabus all the CoBaTrICE domains have been mapped against the four GMP domains of good practice (see *Part III: Syllabus*) which are:

Domains of Good Medical Practice[5]	
Domain	**Descriptor**
1	Knowledge, skills and performance
2	Safety and quality
3	Communication, partnership and teamwork
4	Maintaining trust

1.5.1 Description of CoBaTrICE methodology[6]

The development of the syllabus for the CCT in ICM has drawn extensively on the CoBaTrICE syllabus created under the auspices of the European Society of Intensive Care Medicine. The FICM acknowledges the vital role that the CoBaTrICE project group's work has played in designing this curriculum.

Consensus techniques (modified Delphi and nominal group) were used to enable interested stakeholders (health care professionals, educators, patients and their relatives) to identify and prioritise core competencies. Online and postal surveys were used to generate ideas. A nominal group of 12 clinicians met in plenary session to rate the importance of the competence statements constructed from these suggestions. All materials were presented online for a second round Delphi prior to iterative editorial review. The initial surveys generated over 5,250 suggestions for competencies from 57 countries.

Preliminary editing allowed the original European working group to encapsulate these suggestions within 164 competence stems and 5 behavioural themes. For each of these items the nominal group selected the minimum level of expertise required of a safe practitioner at the end of their specialist training, before rating them for importance. Individuals and groups from 29 countries commented on the nominal group output; this informed the editorial review. These combined processes resulted in 102 competence statements (in the original CoBaTrICE document), divided into 12 domains. Using consensus techniques core competencies were generated which are internationally applicable but still able to accommodate local requirements. This provided the foundation upon which this competency based training programme for Intensive Care Medicine was built.

1.5.2 Development group, consultation and feedback

This curriculum, which continues to be based on CoBaTrICE, has been developed by a curriculum development group of the FICM, all of whom are actively involved in teaching and training, in conjunction with other Royal Colleges, Regional Advisors, trainees in ICM, and lay representatives. Following initial drafts the curriculum was made available to the wide, multi-disciplinary ICM community by the FICM and ICS web-sites. The curriculum was also reviewed by lay representatives of the CritPal organisation. Feedback from all these groups was then used in the production of the final submission.

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5 A detailed breakdown of these GMP domains in the framework of appraisal can be found at http://www.gmc-uk.org/Framework_4_3.pdf_25396256.pdf.

6 Bion JF, Barrett H. Development of core competencies for an international training programme in Intensive Care Medicine. *Intensive Care Med* 2006;32(9):1371-83.

1.6 Ongoing curriculum review

The standalone ICM curriculum is a completely new programme of training. It does build on the well established model of Joint ICM training but has a number of new features and innovations. As such it will clearly need a series of modifications and changes following initial implementation. The FICM will therefore initially review the programme on a yearly basis, with an implementation date for any changes being not less than six months after their publication date. As the programme matures the review period will be lengthened. Minor changes will be inserted in the online manuals immediately and will be collectively submitted to the GMC for approval once a year. Major changes, such as a new unit of training, will be submitted to the GMC for approval as and when necessary and will be inserted into the curriculum when approval has been granted. Summaries of changes will be listed on the training pages of the FICM website as they occur.

Occasionally the Faculty has to take decisions that may affect the immediate interpretation or application of specific items in this manual. These will be published on the website and circulated to Regional Advisors.

1.7 Structure of the curriculum manual

This curriculum document has four parts:

- **Part I** is the **Handbook**, an overview of competency-based training in ICM. It includes background information, current criteria and standards for training and assessment methods.
- **Part II** is the **Assessment System**. This details the ways that trainees will be assessed as they progress through the ICM training programme.
- **Part III** is the **Syllabus** for the training programme. This is divided into 12 domains, plus Basic Sciences, and defines the training objectives and the competencies required to fulfil those objectives in each domain. Each competency is mapped to relevant assessment tools and domains of Good Medical Practice.
- **Part IV** details **Core and Common Competencies**. This section describes the competencies that trainees will gain in each of the multiple cores of ICM training. These competencies are all mapped to the ICM Syllabus (as well as relevant assessment tools and domains of Good Medical Practice) and presented separately for ease of use by trainers dealing with trainees from the multiple cores.

2. Entry requirements and training pathways

2.1 ICM CCT entry

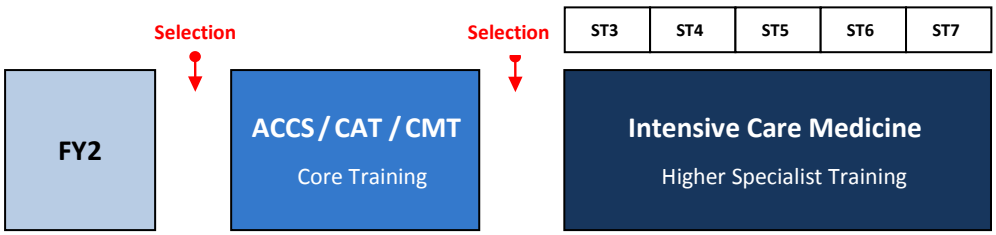
Entry into ICM training is possible following successful completion of Foundation training programmes. Entry to ICM training can occur by any of three core training schemes including:

- **ACCS** [Acute Care Common Stem];
- **CAT** [Core Anaesthetic Training]; or
- **CMT** [Core Medical Training].

All three core training programmes contain some, but not all of the core elements that the FICM require for the first stage of ICM training. Please see *Part IV* for competency mapping of the multiple cores.

No single, dedicated ICM core training scheme has been developed. This is a deliberate choice of the FICM based on our philosophy, backed by evidence, that the delivery of ICM in the UK has been greatly strengthened by the entry into ICM training of trainees with diverse medical background, principally from Anaesthesia, Medicine and Emergency Medicine. The use of multiple core schemes in this ICM CCT allows that link to be maintained and strengthened by facilitating the acquisition of dual CCTs in ICM and a complementary specialty. Trainees who train in ICM alone can enter higher specialist ICM training by any of the above core schemes.

Entry for higher specialist ICM training will generally occur at ST3 level by a competitive process. The training programme acknowledges the fact that on entry to higher ICM training not all trainees will have had an identical training experience. The first two years of higher ICM training (ST3-4) are designed to enable all trainees to achieve the same level of competency achievement by the end of ST4 (see *Part II*). These first four years of ICM training (CT1-2 and ST3-4) are therefore considered in our training programme as Stage 1 training.



2.1.1 ACCS core

ACCS is a core training programme providing wide experience in management of patients presenting with acute illness. It comprises two years consisting of four attachments, commonly 6 months each in Acute Medicine, Anaesthesia, Emergency Medicine and Intensive Care Medicine[7]. Competitive entry to higher training will occur at ST3 level. Trainees undertaking dual CCTs with ICM and another specialty will need to complete the entry requirements of both specialties prior to ST3.

[7] The FICM recognises that whilst an arrangement of two 6 month blocks is the most common combination for the ICM/anaesthesia year of ACCS (and is recommended by the Faculty), some regions allow trainees to divide this time into blocks of 3 and 9 months, weighted to either discipline. ACCS (Anaesthesia) trainees undertaking only 3 months in one of the specialties during ACCS would need to undertake a further 9 months of it before completing Stage 1.

2.1.2 CAT core

CAT is a two year core training programme for those planning a career in Anaesthesia. It consists of rotations to allow trainees to gain experience in basic anaesthesia, the assessment of patients including the acutely ill, resuscitation skills and some exposure to ICM.

2.1.3 CMT core

CMT is a core training programmes for those planning a career in Medicine or one of its specialties. It consists of two years of rotations between both acute general medicine and some exposure to specialities which may include ICM. A significant proportion of time is spent caring for acutely ill patients admitted on the Medical Take.

2.2 Dual CCTs

In the UK ICM training was traditionally delivered alongside other higher specialist training in the form of a Joint CCT programme incorporating two CCTs. Most practicing intensivists are therefore also qualified in Anaesthesia, Emergency Medicine or one of the Medical specialties.

Members of the intensive care community believe that this multi-disciplinary training has been of great benefit to critically ill patients in the UK. We therefore wish to continue to promote training in ICM and other disciplines by allowing the creation of dual training schemes. In all of these the trainees will need to acquire the full competencies of both disciplines but by a suitable choice of training attachments and educational interventions this can be achieved without undue prolongation of training.

The "Gold Guide" gives specific advice on dual CCT training and the following sections are particularly relevant:

> ***6.32*** Where trainees are competitively appointed to a training programme leading to dual certification (e.g. neurology and clinical neurophysiology), trainees are expected to complete the programmes in full and obtain the competences set out in both curricula. Application to PMETB for a CCT should only take place when both programmes are complete. The two CCTs should be applied for and awarded on the same date.[8]

The GMC guidance on dual CCTs states that:

> Dual CCTs are available if the trainee can demonstrate achievement of the competences/ outcomes of both the approved curricula. Both potential trainees and selection panels must be clear whether the appointment is for a dual or single CCT/s. Appointment to dual CCT programmes is through competition.[9]

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[8] *A Reference Guide for Postgraduate Specialty Training in the UK*, Modernising Medical Careers, Fourth Edition, June 2010, p.39.

[9] http://www.gmc-uk.org/education/postgraduate/6790.asp .

2.2.1 Competency mapping in dual CCTs

There are specific acute medical specialties where areas of competence overlap with those of Intensive Care Medicine. To facilitate the creation of dual training programmes, the FICM and its trustee Colleges have undertaken cross-mapping exercises of the relevant curricula to identify areas of commonality that will allow trainees to acquire the full competencies of both disciplines via a suitable choice of training attachments and educational interventions whilst avoiding undue prolongation of training. The specialties encompassed in this mapping are:

- Acute Internal Medicine
- Anaesthetics
- Emergency Medicine
- Renal Medicine
- Respiratory Medicine

The indicative timeframe for each of these dual programmes is 8.5 years. Trainees from other specialties may apply for dual training with ICM; however selection panels must be aware that appointment to an ICM CCT programme for trainees outside the currently mapped dual schemes may result in considerable prolongation of training to allow acquisition of all requisite competencies.

Trainees wishing to obtain dual certification in one of the above CCT specialties and in the single ICM specialty will be able to obtain a proportion of the other specialty competencies and assessments during ICM training, and vice-versa. The shared competencies and forms of assessment have been identified by a joint working group between the relevant college (i.e. the JRCPTB, the Royal College of Anaesthetists and the College of Emergency Medicine) and the FICM, and are documented in the dual CCT guidance produced by the relevant college and the Faculty of Intensive Care Medicine.

The above list is correct at time of publication; any further specialties undertaking dual CCT mapping with ICM will be added to future revised editions of this curriculum and noted as such online. Detailed guidance documents on duals CCTs for ICM and its partner specialties can be found online.

2.2.2 Stepped entry to Dual CCT programmes

Stepped entry to dual CCT programmes, where one component is Intensive Care Medicine and the other is a recognised partner specialty (see 2.2.1, above), is permissible. The trainee may enter either the ICM CCT programme or the partner specialty CCT programme first and then compete for entry to the other CCT programme. A maximum gap of 18 months is permitted between commencement of training in the initial CCT programme and commencement of training in the second. If the gap between commencing CCT programmes is greater than 18 months then the trainee can still apply for and be appointed to the second specialty training programme, but would receive a CESR[CP] in this second specialty, not a CCT.

Trainees appointed to dual CCTs should have their remaining overall training constructed in such a way as to pick up the Stage 1 competencies they have not already achieved; as with trainees entering at ST3 they must achieve all the competencies required of both programmes before they can be awarded CCTs.

Trainees who follow the dual CCTs route will obtain a proportion of their ICM competencies during their partner specialty training. The transferable competencies are documented in the dual CCTs guidance produced by the FICM and its partner colleges, and are available on the FICM and college websites.

For example, the 3 months of Intermediate level ICM that forms a standard part of *The CCT in Anaesthetics* can be counted toward the 12 month requirement for ICM in Stage 1 of the ICM CCT programme. Any Stage 1 competencies already achieved which are accepted as dual-counting for both CCTs may be counted toward the ICM CCT programme even though the trainee was appointed to the respective specialties over a stepped period.

2.3 Entry requirements (Examination)

Entry into higher specialty ICM training will require completion of one of the prescribed core training programmes, as detailed above, using that core's GMC-approved curricula and assessment system. This includes successful completion of the relevant primary examination for that programme. These are:

- FFICM Primary
- FRCA Primary
- MRCP(UK)
- MCEM Parts A, B and C

2.4 CCT and CESR[CP]

The CCT and the CESR[CP] – Certificate of Eligibility for Specialist Registration [Combined Programme] – are two recognised routes for specialist registration. To be a substantive consultant in the NHS, the legal requirement is that the individual is on the specialist register and does **not** stipulate that the individual must have a CCT[10]. The CCT is awarded to those trainees who have completed a GMC approved CCT training programme in its entirety[11] as opposed to the CESR[CP] which is awarded to a trainee who completed a component of their training outside of the approved programme.

Further guidance on CESR and ICM training is available on the Faculty's website[12].

2.5 Enrolment with Faculty

All single and dual ICM CCT trainees must enrol as Trainee Members of the FICM upon commencing higher specialist training in ICM and with their other College for dual trainees.

[10] Section 4(b) of SI1996/0701 The National Health Service (Appointment of Consultants) Regulations 1996.

[11] Section 34K of the Medical Act 1983.

[12] www.ficm.ac.uk.

3. Content of Learning

3.1 Underlying principles

The principles of the UK CCT in Intensive Care Medicine training programme are that it:

- Is outcome based
- Is planned and managed
- Promotes safe practice
- Is delivered by appropriately trained and appointed trainers
- Allows time for study
- Includes those core professional aspects of medical practice that are essential in the training of all doctors
- Meets the service needs of the NHS
- Respects the rights and needs of patients
- Is prepared with input from the representatives of patients
- Accommodates the specific career needs of the individual trainee
- Is evaluated
- Is subject to review and revision

3.1.1 "Spiral" learning

The training programme is based on this concept which ensures that the basic principles learnt and understood are repeated, expanded and further elucidated as time in training progresses; this also applies to the acquisition of skills, attitudes and behaviours. The outcome is such that mastery of the specialty to the level required to commence independent practice in a specific post is achieved by the end of training as knowledge, skills, attitudes and behaviours metaphorically spiral upwards.

3.2 General structure of the CCT programme

3.2.1 Duration of training

The minimum indicative duration of training in ICM is seven years, undertaken in three stages. If a trainee is undertaking dual CCTs in ICM and another specialty the indicative minimum training period is eight and a half years, with five years being at Specialty training level. Training times are indicative and assume an average rate of gain of competency.

3.2.2 Stages of ICM training

(i) **Stage 1** ICM (CT1-ST4) training consists of an initial four year block of training. Years 1 and 2 will be spent in the Core Anaesthetic, Core Medical or ACCS programmes. Competitive entry to ST3 will occur. ST3 and ST4 are intended to consolidate the trainee's knowledge and skills in general diagnosis and patient management and enable trainees who enter from a variety of core programmes to achieve the designated competency levels by the end of ST4. Stage 1 contains minimum training times of 12 months each in anaesthesia, medicine and ICM across the minimum four year training Stage.

Stage 1 training is four years long. Any trainee entering the single ICM CCT programme who has completed the compulsory 12 month modules in ICM, anaesthesia and medicine in less time

than this (for example by completing two years of ACCS and then entering single CCT ICM) must still complete a full four years in Stage 1. Training is not only about the acquisition of competence but also experience and the development of expertise required to move on to Stage 2. Extra training may be in any of the acute specialties and must be decided by the trainee and their educational supervisor and must take account of any specific training needs as well as the needs of the service and local availability. Trainees undertaking dual CCTs in ICM and one of the defined dual specialties will complete four years of Stage 1 training by virtue of their additional programme.

In certain exceptional circumstances (for example as part of an academic training programme) this extra training may be undertaken in a research post – in such cases, and where the overall training programme will result in more than the 12 months normally allowed for research within the overall CCT programme (see section 4.3.3), the trainee must contact the Faculty for prospective approval of the planned research time.

(ii) **Stage 2** ICM (ST5-6) covers ICM training in a variety of "special" areas including paediatric, neurosurgical and cardiothoracic ICM. It also allows trainees to develop a special skill or area of expertise that will benefit patients and the service in general.

In many hospitals patients presenting acutely with for example head trauma or paediatric sepsis will need the skills and expertise of intensivists to institute resuscitation and stabilisation prior to transfer or retrieval. Therefore during the programme at least 3 months each must be spent in developing skills and competencies associated with the specialist areas of cardiac, neurosurgical, neuromedical and paediatric practice.

All trainees in ICM must develop an area of special expertise which will be of direct benefit to the service and patient care. Intensive Care Medicine has a history of practitioners from many different backgrounds bringing skills and competencies into the Intensive Care Unit. Possible areas, which must be approved by the FICM, will include research in ICM, medical education, leadership, or specific areas of practice such as burns. For trainees undertaking dual CCTs in ICM and another specialty then their area of special expertise will be the other specialty. Up to 12 months of Stage 2 training can be used to develop this special area of expertise.

(iii) **Stage 3** ICM consists of the final year of training (ST7), which must be spent in Intensive Care Units consolidating the trainee's competencies and acquiring high level management and administrative skills, progressively achieving autonomy so that they are competent to take up a consultant post in ICM.

3.3 Generic Competencies

The trainee must also develop general professional knowledge, skills, attitudes and behaviors required of all doctors. The common competencies in the core aspects of medical practice (identified from the Academy of Medical Royal Colleges [AoMRC] Common Competencies[13]) are as important as the clinical competencies identified and they should be attained seamlessly during clinical training.

These competencies are included in the CoBaTrICE competency framework, albeit under a different domain structure. In order to ensure consistency with other core training programmes we include these competencies and their assessment framework in *Part IV*.

[13] http://www.aomrc.org.uk/publications/reports-guidance/doc_download/134-common-competences-framework-for-doctors.html and Medical Leadership Curriculum Frameworks; and http://www.aomrc.org.uk/publications/reports-guidance/doc_download/132-medical-leadership-competency-framework-.html.

3.4 Principal learning outcomes of the ICM CCT programme

The following table gives the principal learning outcomes to be achieved by trainees during the ICM CCT programme, divided into the three stages of training with indicative CT/ST years. In keeping with the spiral learning philosophy that underpins the curriculum design learning outcomes are described, where appropriate, in terms of an increasing standard of competence to be achieved. This 4 level scheme (novice to expert) is detailed in section 6 and also *Part II* of this curriculum, and is based on other well-established descriptor schemes.

Stage 1 (CT1 – ST4)

Core Common learning outcomes

The trainee will have achieved learning outcomes that reflect the general professional knowledge, skills attitudes and behaviours required for all doctors. The trainee (to at least Level 2 standard – see *Part II*) will be able to:

- Take a focused history from patients with complex presentations
- Conduct a focused examination on patients with complex presentations
- Organise and prioritise clinical duties
- Formulate a diagnostic and treatment plan
- Prioritise the patient's wishes
- Prioritise patient safety
- Work well as a team member
- Promote quality and safety in the workplace
- Promote infection control in the workplace
- Promote patient self care and management
- Be an effective and sympathetic communicator
- Be able to communicate "bad news" with sympathy
- Be able to deal with complaints and medical error
- Be able to communicate effectively with all health care professionals
- Promote public health
- Apply the principles of medical ethics and law
- Obtain valid consent
- Understand the legal framework for practice
- Ensure that medical research is conducted within a correct ethical and legal framework
- Systematically appraise and apply evidence to medical practice
- Perform audit
- Teach and train
- Develop positive personal attributes that contribute to clinical effectiveness
- Participate in the management of the health care system

Core Anaesthesia as applied to the Severely Ill learning outcomes

Knowledge and skills in areas of anaesthetic practice are essential for a competent intensivist. Whilst these skills can be learnt in the intensive care environment the volume of cases is such that expertise will be difficult to achieve. The trainee intensivist must undertake an attachment of no less than 12 months in anaesthesia (normally in blocks of 6 months but no less than 3 months) within the first four years of ICM training to develop the necessary skills of induction of anaesthesia, airway control, management of acutely unwell patients, care of the unconscious patient and understanding of surgery and its physiological impact on the patient. These skills are core to the safe practice of Intensive Care Medicine and trainees who are not also training towards dual CCTs in anaesthesia and ICM will be expected to demonstrate maintenance of these skills throughout their training and throughout their professional life.

Trainees will be attached to anaesthesia departments and are assessed against the *CCT in Anaesthetics* curriculum (2010). All these elements are contained within the CoBaTrICE syllabus and are mapped in *Part IV* but for clarity for both trainees and trainers the relevant competencies are included in this curriculum.

- Have passed the Initial Assessment of Anaesthetic Competence
- Will be able to manage the perioperative care of the acutely ill emergency patient to Level 2 standard
- Will be able to manage emergency anaesthesia for stable patients under local supervision to Level 2 standard
- Will understand the principles of advanced cardiorespiratory resuscitation for the unstable critically ill patient undergoing surgery
- Will recognise and have knowledge of and manage potential airway problems to Level 2 standard
- Will successfully manage a CICV (can't intubate; can't ventilate) situation in a simulated environment
- Will manage Anaesthetic critical incidents to Level 2 standards

Core Medicine as applied to the Severely Ill learning outcomes

The trainee will acquire the ability to rapidly assess, investigate and manage a wide range of acute medical and surgical problems that present in the population of patients admitted to hospital via either Medical Assessment Units or Emergency Departments. Knowledge and experience of the management of acutely ill patients outside critical care is required, including a range of presentations relevant to critical care practice to level 2 as defined in CMT/ACCS. Whilst all these competencies can be acquired in an ICU environment the volume of cases is such that expertise will be difficult to achieve; an attachment of no less than 12 months (normally in blocks of 6 months but no less than 3 months) to an acute medical unit admitting a broad range of unselected medical take is required to facilitate the development of diagnostic, investigational and patient management skills. Up to 6 months within this period can be spent in Emergency Departments.

The trainee will be able to manage the following common presentations to at least Level 2 competency:

- Cardio-respiratory arrest
- Shocked patient
- Unconscious patient
- Anaphylaxis
- Abdominal pain
- Blackout/collapse
- Breathlessness
- Chest pain
- Confusion/Delirium
- Fever
- Fits/seizures
- GI bleeding upper and lower tract
- Palpitations
- Poisoning
- Weakness and paralysis
- Medical problems following surgery
- Medical problems in pregnancy

Core ICM learning outcomes

The trainee will progressively assess, diagnose and manage a wide range of problems both within and outside the Intensive Care Unit. This will involve an attachment of at least 12 months to a general ICU (normally in blocks of 6 months but no less than 3 months). In general the trainee will achieve Level 2-3 competencies during this period in most learning domains as defined in the Training Progression Grid (see *Part II*). The trainee will be able to:

- Initiate and continue the resuscitation of the severely ill patient in a variety of hospital environments
- Assemble and integrate data relevant to the management of the severely ill
- Manage a wide range of medical and surgical patients presenting with severe illness and developing organ dysfunction and failure
- Initiate and manage organ specific support including mechanical ventilation, renal support, cardiovascular support and nutritional support
- Perform a range of practical procedures including the placement of intravascular access devices and chest drains
- Perform a variety of advanced airway techniques including bronchoscopy and tracheostomy techniques
- Be familiar with ultrasound techniques to identify vessels and basic investigation of body cavities

Stage 2 (ST5-6)

The purpose of these years is to:

- Consolidate the ICM training achieved in ST3 and ST4
- Gain experience in 3 major areas of specialist intensive care
- Allow trainees to develop special skills that will "add value" to the intensive care teams that they will join following completion of their CCT

Cardiothoracic learning outcomes:

At the end of the 3 month block the trainee will:

- Be able to manage cardiac failure following an acute cardiac event
- Be able to manage post operative cardiac patients following both elective and emergency cardiac surgery
- Be aware of the indications for discussion and transfer of critically ill patients to Regional Cardiothoracic units
- Be able to stabilise and transfer patients with acute cardio-respiratory conditions requiring cardiothoracic intensive care

Neurosurgical Intensive Care learning outcomes:

At the end of the 3 month block the trainee will:

- Be able to manage patients with severe acute brain injury
- Be able to manage post operative neurosurgical patients following both elective and emergency neurosurgery
- Be able to manage common neurological disorders not requiring neurosurgery
- Be aware of the indications for discussion and transfer of critically ill patients to Regional Neurosurgical units
- Be able to care for and manage the potential organ donor and their families
- Be able to stabilise and transfer patients with acute neurosurgical conditions

Paediatric Intensive Care learning outcomes:
Specialists in ICM will often obtain consultant posts in district general hospitals without paediatric services and expertise immediately available on site. They must therefore be able to contribute with other disciplines to the stabilisation and initial management of the critically ill child before and during transfer to a paediatric centre.

At the end of the 3 month block the trainee will:

- Be able to resuscitate, stabilise and transfer an acutely ill child
- Understand the fundamentals of paediatric intensive care including post operative care following surgery
- Be aware of the indications for discussion and transfer of critically ill children to Regional Paediatric Intensive Care units

These outcomes may be achieved in a variety of situations which facilitate familiarity with children and allow development of knowledge of the physiological differences seen in babies and children and competence in management of for example small airways, lungs, veins, and circulation. Situations could include paediatric anaesthesia, a paediatric unit admitting acutely unwell children and babies as well as a PICU. Some but not all skills may be practised in simulation. Structured visits to a PICU to become aware of the particular problems faced by children will be necessary if a formal attachment to a PICU is not included in the training programme.

Additional 3 month block
The final 3 months of the above training year can be spent in general ICM training or further training in a specialist area.

Special Skills
In the independent enquiry into Modernising Medical Careers, Professor Sir John Tooke identified a need to *Aspire to Excellence*, advocating "increased flexibility, the valuing of experience and the promotion of excellence"[14]. Intensive Care Medicine has a history of practitioners from many different backgrounds bringing skills and competencies into the Intensive Care Unit – these skills are of direct patient benefit and contribute to the construction of a comprehensive team.

The GMC's 'Good Medical Practice' requires doctors to commit to life-long learning in order to maintain and improve performance; the foundations for this set of attitudes and behaviours must be established during training through aspiration to excellence, manifest by the acquisition of special skills and interests.

During Stage 2 trainees will be expected to develop and consolidate expertise in a special skill directly relevant to ICM practice. Areas of particular benefit to the future development of critical care and its work force are recommended including ultrasound expertise, education or research.

The choice of special skill should be guided by the Programme Director to reflect the career intentions of the trainee. For example a trainee intending to practice in a more remote area may wish to develop greater paediatric expertise as these skills may be required more regularly in such an environment than in a large central hospital. Acquisition of this expertise must be as part of an FICM-approved[15], competency-based training programme.

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[14] *Aspiring To Excellence: Findings and Final Recommendations of the Independent Enquiry into Modernising Medical* Careers. MMC Inquiry, London, 2008, p.7.

[15] A full set of guidance documents for approved dual CCT and Special Skills specialties is available at www.ficm.ac.uk.

Trainees could for example train in:

- Additional Medicine, Anaesthesia or Emergency Medicine
- Advanced ultrasound imaging techniques
- Academic training as part of an Academic training programme
- Augmented learning outcomes in specialist Intensive Care including Paediatrics, Cardiothoracic or Neurosurgical Intensive Care
- Medical Education and Teaching
- Management training
- Research methods training to be unit lead in CLRN portfolio study research
- A period of research aimed at obtaining pilot data to underpin a research training fellowship
- Rehabilitation Medicine to equip clinicians with a special interest in chronic critical care (e.g. chronic ventilatory support), or critical care follow up.
- Quality Improvement

During these blocks trainees must continue to develop their patient-orientated intensive care skills. Trainees should continue with a substantial clinical workload to maintain and develop clinical skills. This should include regular supervised daytime and out of hours work.

Stage 3 (ST7)

During this final year of ICM training trainees should progressively increase their level of autonomy so that they are capable of becoming an independent practitioner. Whilst knowledge and skills gained during prior training will be consolidated, education of others, management and leadership assume a greater importance.

ICM learning outcomes:
At the end of this year the trainee will:

- Have a detailed knowledge of the majority of conditions presenting to intensive care
- Have a wide experience of ICM in varied situations
- Be able to manage initial resuscitation and stabilisation of any acutely ill patient, adult or child, prior to transfer to an appropriate specialist centre
- Be able to work unsupervised and take on a management and leadership role in an ICU.
- Be able to supervise trainees in ICM

3.5 Local decisions about exact composition of programme

The exact nature of each training programme will be decided at a Regional level following discussion with the Regional Dean and the local training leads. However the overall programme must conform to the specifications outlined in this document and deliver the training outcomes as defined in the Training Progression Grid in *Part II*.

4. Learning and Teaching

4.1 Educational strategies

The curriculum describes educational strategies that are suited to work-based experiential learning and to appropriate off-the-job education. The manner in which the training programme is organised to deliver such training will vary between regions, depending on local facilities, and will need to be flexible enough to be tailored to the individual trainee. However, the most important element of training is appropriately supervised direct participation in the care of patients with a wide range of conditions, and there can be no substitute for this approach. Training should therefore be structured to allow the trainee to be involved in the care of patients with the full range of critical illness and related problems. During the training programme the trainee must demonstrate increasing responsibility and capability across the full range of practice expected of an independent ICM consultant specialist.

4.2 Teaching and Learning Methods

The curriculum will be delivered through a variety of learning experiences. Trainees will learn from practice clinical skills appropriate to their level of training and to their attachment within the department. An appropriate balance needs to be struck between work-based experiential learning, appropriate off-the-job education and independent self-directed learning. ICM is a specialty that encompasses a huge range of clinical conditions and a significant number of practical skills, such that the greater proportion of learning should be work-based experience. The remainder can be made up of a Structured Training Programme [STP].

The curriculum indicates where particular learning methods/experiences are especially recommended. However, it is for the trainee, Educational Supervisor and Training Programme Director to tailor the exact balance of methods to the particular regional environment and trainee in the most suitable blended manner. Trainees should have supervised responsibility for the care of patients. A guiding principle should be that the degree of responsibility taken by the trainee will increase as competency increases. This means that the degree of clinical supervision will vary as training progresses, with increasing clinical independence and responsibility as learning outcomes and competences are achieved.

All trainees are adult learners and take responsibility for their own education. It is the responsibility of the trainers to ensure adequate and appropriate educational opportunities are made available to the trainee. In turn the trainee should be enthusiastic and pro-active in identifying their own gaps in knowledge, skills, attitudes and behaviour. Trainees need to take advantage of all the formal and informal learning opportunities that go on in departments.

The following identifies the types of situations in which trainees learn, and draws from the AoMRC Medical Leadership Curriculum.

4.2.1 Learning from experience and practice

Trainees spend a large proportion of time on workplace-based experiential learning during supervised clinical practice in hospital settings. Learning involves closely supervised clinical practice until competence is achieved. The learning environment includes wards, clinics, laboratories, simulated activities and meetings. These more informal settings are valuable situations in which to develop leadership abilities, alongside colleagues from other professions and fields of work. With increasing responsibilities and independence, the trainee will take the lead for an area of work, ultimately integrating a range of abilities to finally deliver consultant level practice.

4.2.2 Learning from feedback

Trainees learn from experience and this can be enhanced by reflecting on feedback from patients, carers, and the public, as well as colleagues and other staff.

4.2.3 Learning with peers

There are many opportunities for trainees to learn with their peers. Local and regional postgraduate teaching opportunities allow trainees at different phases of training to come together for group learning.

4.2.4 Learning in formal situations

There are many opportunities for formal teaching at the local postgraduate level including attending regional and national courses and conferences to meet educational needs.

4.2.5 Personal Study

Time should be provided during training for personal study for self-directed learning to support educational objectives or to attend formal courses in support of the stage of training, specialist interests and career aims.

4.2.6 Independent learning

This may include new learning technologies such as "e-learning", which may be helpful in conveying the knowledge components of the curriculum.

4.2.7 Specific trainer input

It is important to recognise and capitalise on the experience and expertise within each department, including non-clinical staff. Different members of the team can act as role models at different stages, including those from other professions or spheres of work.

4.3 Out of Programme

For the award of a CCT, trainees must complete the GMC approved Intensive Care Medicine programme in its entirety[16]. There are opportunities for trainees to undertake approved periods of time outside of the approved programme as experience, research or training. When contemplating undertaking a period out of programme, trainees should discuss the options and consequences of taking time out of programme with their Educational Supervisor, Faculty Tutor and TPD.

4.3.1 Out of Programme Experience [OOPE]

OOPE is defined by the GMC as:

> "'Out of programme clinical experience' that does not count towards the award of a CCT."

OOPE may be obtained in clinical or research posts in the United Kingdom or overseas that have not received *prospective* approval from the GMC.

[16] Article 6(1) of The General and Specialist Medical Practice (Education, Training and Qualifications) Order 2003.

Although FICM approval is not required for this out of programme experience, it is essential that trainees inform the FICM (and if undertaking dual CCTs the respective college) of the dates of all OOPE so that prospective completion dates can be revised.

4.3.2 Out of Programme Experience for Training [OOPT]

OOPT is training, taken out of programme that will count towards the CCT provided certain conditions and requirements are met. They are:

- On commencing OOPT the trainee must be in a GMC-approved training programme.
- OOPT cannot be granted until a trainee has completed Stage 1 training *in its entirety*. This does not preclude setting up and planning OOPT during the latter part of Stage 1 training.
- The OOPT programme must map to competencies identified in the ICM CCT programme.
- The OOPT post must be prospectively approved by the GMC with support from the Postgraduate Dean, the FICM and if appropriate their respective parent college (*At least six months should be allowed for the approvals process*).
- OOPT may be in appropriate clinical posts both in the UK and overseas.
- Only one year in total during Stage 2 or 3 training can be taken as OOPT.
- The last 6 months of the CCT training programme normally should be in the UK.
- Trainees undertaking dual CCTs who wish OOPT to count toward both CCT programmes must obtain approval from both the FICM and respective partner specialty college before undertaking OOPT.
- The trainee on his/her return must complete a report on the time spent on OOPT and submit it, together with an assessment report from the local supervisor, to the Deanery, the FICM, and if appropriate to the respective partner specialty college.

4.3.3 Out of Programme Experience for Research [OOPR]

OOPR is research taken out of programme. The same rules apply as for OOPT.

The FICM is very supportive of Academic training in ICM. Trainees who wish to undertake a period of dedicated research need to plan this well in advance of the proposed start date (usually at least one year) and will need to discuss this with their RA and Dean. Trainees who are interested in an Academic career in ICM or in a period of Research training should consult the Academic training guide available on the FICM website.

Up to one year of research can normally be counted towards the ICM CCT whether it is taken out of programme or as part of the trainee's Special Skills year. Provided there is a clinical element to the programme (this includes out of hours duties within the hospital where the trainee is based for their research time), the full year may be counted towards the CCT programme. If there is no clinical element to the research programme, a maximum of 6 months only will count towards the ICM CCT programme. In certain exceptional circumstances (for example as part of an academic training programme) trainees may wish to undertake further research time as part of their Stage 1 training (see section 3.2.2). In such cases trainees must contact the Faculty for prospective approval of the planned research time.

4.3.4 In and Out of Programme Experience for Education and Management

As for research, in and out of programme experience/training can be taken to undertake training in education or management. Up to one year of either can be counted towards the CCT, whether it is out of programme or as part of the trainee's Special Skills year. Provided there is a clinical element to the programme (this includes out of hours duties within the hospital where the trainee is based for their education or management time), the full year may be counted towards the CCT programme. If there is

no clinical element to the programme, a maximum of 6 months only will count towards the ICM CCT programme.

4.3.5 Applying for OOPT

It should be made clear to trainees that any proposed period of OOPT must be arranged at the earliest opportunity. Gaps created within the rotation will need to be filled and if the OOPT is to be spent overseas, the acquisition of visas and the necessary licensing documentation for clinical work may be lengthy and difficult.

It is the responsibility of the trainee to provide all necessary information in their applications to the Deanery. An application form and checklist can be downloaded from the training pages of the FICM's website.

4.4 Secondment between Schools and Deaneries

Secondment of a trainee to an approved training or research post in another School or Deanery (e.g. to obtain training not available in the home School or Deanery) is not regarded as OOPT; the secondment is an integral part of that individual's training programme.[17]

4.5 Out of hours commitments

Most ICM work is unscheduled and at least 50% of admissions to ICUs occur "out of hours". In view of this it is essential for trainees to gain experience outside routine working hours. This provides:

- An opportunity to experience and develop clinical decision making, with the inevitable reduction in out-of-hours facilities, under distant supervision.
- An opportunity to learn when to seek advice and appreciating that, when learning new aspects of emergency work as trainees, they require close clinical supervision.
- A reflection of professional ICU practice, as in most hospitals patients are admitted 24 hours a day, seven days a week, so requiring dedicated out-of-hours emergency facilities; there is thus a service commitment.
- In view of these training needs at least 12.5% of time should be spent on ICU outside of 08:30 to 18:30 daytime hours.
- Trainees should provide dedicated out of hours cover to the specialty module they are attached to.

Occasionally, there may be a unit of training, where out of hours work is not required; this will be the exception. For units of training where out of hours work is required (the majority), *trainees should not work more onerously than 1:8* to ensure that they can meet the many training outcomes that are gained during normal working hours, in addition to those gained out of hours.

The Faculty does recognise that there are occasions when additional out of hours work is required due to local circumstances; when this occurs, it should be for short periods only otherwise there will be an adverse impact on the trainees progression through the programme, making it is almost certain that training time will have to be extended to ensure the learning outcomes are met. Local trainers, in conjunction with their Clinical Directors, must recognise this consequence if excessive out of hours commitments (i.e. more onerous than 1 in 8 for more than the occasional week) are placed above

[17] *A Reference Guide for Postgraduate Specialty Training in the UK*. Modernising Medical Careers. Fourth edition, June 2010. (Section 6.94).

training requirements. Finally, it is important to ensure that any new aspects of emergency work are undertaken initially with close clinical supervision.

For trainees unable to undertake out of hours work due to illness or other debilitating circumstances, the Faculty Tutor, RA, TPD and FICM Training & Assessment Committee will determine whether it is possible to obtain all the essential learning outcomes and, if so, if extra training time is required. This may involve extending the period of training for a specific unit(s) and/or the whole programme. Trainees are advised to discuss the potential consequences of an inability to perform out of hours work as soon as practicable, as it may have a major impact on the training programme leading to the award of a CCT, including failure to complete a CCT programme.

4.6 Less than full-time [LTFT] trainees

After appointment in open competition any trainee, with Deanery-agreed eligibility, can request to train less than full-time. The training programme will be delivered on a *pro rata* basis for those who are eligible and have Deanery support. Each region has a LTFT training adviser who works with the RA and the local Deanery to ensure that the needs of those trainees are met. General advice on LTFT training is contained in the "Gold Guide"[18]. Finally, the European Medical Directive states that:

> "Member States may authorise part-time training under conditions laid down by the competent authorities; those authorities shall ensure that the overall duration, level and quality of training is not lower than that of continuous full-time training."[19]

This is interpreted to mean that LTFT trainees should, *pro rata,* undertake the same out of hours work as full-time trainees, including weekend on-call duties.

4.7 Maternity leave and sick leave

The FICM allows 3 months of maternity and/or sick leave to count toward the ICM CCT. Anything up to and including this time frame can be taken as maternity leave and/or sick leave without necessarily delaying the expected CCT date. This will require the trainee concerned to make efforts within the remaining training period to make up the specific elements of training which were missed in order to acquire the necessary competencies. The expected CCT date should be deferred if the period of maternity and/or sick leave results in a trainee missing a key component of the training programme which cannot be compensated for in the remaining period of the programme.

4.8 Training environments

The training of intensivists will occur in UK posts and programmes approved by the GMC, or in other posts and programmes for which prospective approval has been given. Departments in which training occurs must comply with the regulations and recommendations of the relevant national Departments of Health, the GMC and the FICM.

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[18] *Ibid*. (Sections 6.47-6.57).

[19] Article 22(a) of Directive 2005/36/EC of the European Parliament and of the Council of 7 September 2005 on the recognition of professional qualifications.

4.9 Accommodation for training and trainees

Any hospital with trainees must have appropriate accommodation to support training and education; this may be in the department or elsewhere in the hospital e.g. the Postgraduate Teaching Centre. The Faculty's guidelines are that this accommodation should include:

- A focal point for the ICU staff to meet so that effective service and training can be co-ordinated and optimal opportunities provided for gaining experience and teaching.
- Adequate accommodation for trainers and teachers in which to prepare their work.
- A private area where confidential activities such as assessment, appraisal, counselling and mentoring can occur.
- A secure storage facility for confidential training records.
- A reference library where trainees have ready access to bench books (or an electronic equivalent) and where they can access information at any time.
- Access for trainees to IT equipment such that they can carry out basic tasks on a computer, including the preparation of audio-visual presentations; access to the internet is recognised as an essential adjunct to learning.
- A suitably equipped teaching area and a private study area.
- An appropriate rest area whilst on shift.

5. Assessment

Assessments during medical training have a number of purposes. They are principally designed to provide reassurance to trainees, trainers and the general public that training is progressing at a satisfactory rate. They may also identify areas of weakness where trainees will need further work to achieve learning outcomes. Assessments are also opportunities for trainees to demonstrate excellence in their field.

The FICM has developed an integrated set of workplace-based assessments [WPBA], which are to be used throughout the entire postgraduate training programme. They are blueprinted against, and support, the curriculum and the requirements of the GMC's *Good Medical Practice* [20] and every learning outcome that is identified in the curriculum is matched to at least one possible assessment. WPBAs must only be undertaken by those who are appropriately trained; if they are performed by others than consultants in intensive care, a consultant must take ultimate responsibility for the assessment outcome.

It is essential that, on appointment to a specialty training programme, trainees have information about the assessments that they are required to undertake and their timing. The Educational Supervisor should ensure that the trainee is aware of their responsibilities in terms of workplace-based assessments[21] and that they maintain their training portfolio.

The assessment system can be found in *Part II* of this curriculum.

5.1 Workplace-based assessments of progress

5.1.1 Choosing appropriate Assessment Instruments

The curriculum was reviewed and the cognitive, psychomotor and behavioural learning outcomes have been allocated to appropriate instruments for WPBA.

During the seven year CCT programme the ICM trainee will progressively build a portfolio of evidence to demonstrate that he or she has mastered the competencies as defined in detail in the Syllabus (*Part III*). This is structured around 12 Domains and 97 competencies. For the award of a CCT the trainee must produce evidence in all 97 competencies. Domain 1, Resuscitation is viewed as a sentinel skill and evidence for competence is required each year during and after ST3 entry to training. In practice trainees will therefore need to produce evidence for approximately 15 competences each year.

A variety of acceptable forms of evidence can be submitted and included in the portfolio. These are detailed in the CoBaTrICE syllabus under each competence. Many, but not all forms of evidence will take the form of WPBAs. WPBAs provide trainees with instantaneous feedback. Each WPBA may be used to simultaneously assess up to five CoBaTrICE competences. This allows complete sampling of the curriculum without overburdening the trainee or trainer with assessments. Trainees are encouraged provide more than once piece of evidence for each competence. In addition the FFICM examination allows further triangulation by sampling across the Syllabus.

[20] *Good Medical Practice.* GMC, 2009.

[21] *Workplace Based Assessment: A Guide for Implementation.* GMC, April 2010.

One major goal of the initial meeting between trainee and trainer at the beginning of each attachment is to agree on the areas of assessment to be covered during that training period. The training progression and ARCP grids are designed to aid this process. They define one possible approach to the division of the training and assessment process over the programme. They also define the expected level of expertise to be achieved at a given level of training. The expectation of achievement must be adjusted to the trainee's stage of training as defined in the training grid. However it is acknowledged that ultimately the trainer must judge the level of competence against his or her experience. It is also important that both trainees and trainers understand the structure of the CoBaTrICE syllabus and competencies to inform their discussion. The CoBaTrICE structure is not designed to replicate a traditional textbook of ICM and must be understood as a description of the final goal of training.

The trainee and assessor should agree on the CoBaTrICE competences that will be covered by a WPBA before the assessment. This should be a trainee driven process. The FICM have prepared 30 illustrative cases (see *Part II*), with CoBaTrICE mapping, to assist in this process. Over the course of training at least 25 of these 30 cases should be covered as WPBA of various types to further ensure a comprehensive coverage of the curriculum. The cases are chosen because they are both important and common. The exact clinical details will vary and trainees do not have to exactly match the cases. In addition the CoBaTrICE mapping is only a suggestion and other mapping can be performed as appropriate for the assessment of progress.

The FICM is developing an electronic portfolio. Until this is available trainees will need to keep paper-based portfolios as evidence of training progression. A simple spreadsheet of CoBaTrICE domains and competences is available[22]. Following a WPBA the trainee should fill in the spreadsheet as appropriate with the date, type of WPBA and outcome of assessment. A print out of the spreadsheet should be available at the ARCP to inform decision making.

5.1.2 The Available Assessment Methodologies

A pragmatic approach to the choice of assessment methods has been adopted. Many consultants are familiar with Foundation Programme assessment methods, and are trained in their use. It was therefore decided to continue with these same systems throughout CT and ST training. These are the ICM mini-CEX [I-CEX], Directly Observed Procedural Skills [DOPS] and Case-based Discussion [CBD]. In addition these methodologies have a practical utility attested to by experience in their use and at least some objective evidence that correctly applied they have validity and reliability. We have added the Acute Care Clinical Assessment Tool [ACAT] that is used in some other specialties for the assessment of larger segments of clinical work. We have also included Multi-Source Feedback [MSF] as another well-validated assessment tool for global performance, particularly in more complex areas such as team working.

5.1.3 How many workplace-based assessments?

The purpose of the ICM WPBAs is not to tick off each individual competence but to provide a series of snapshots of work, from the general features of which it can be inferred whether the trainee is making the necessary progress, not only in the specific work observed, but in related areas of the application of knowledge and skill. The number of observations of work required will not be fixed but will depend on the individual trainee's performance.

The FICM sets a minimum number of DOPS, I-CEX, ACAT's and CBD's for each year of training (see *Part II*). Where a trainee performs unsatisfactorily more assessments will be needed. It is the responsibility of the trainee to provide sufficient evidence of satisfactory performance and satisfactory progress in their annual review. They will need evidence of performance in each block of training or section of the

[22] www.ficm.ac.uk.

curriculum they have undertaken. This may increase the number of assessments they need. It is the Educational Supervisor's responsibility to help the trainee to understand what that evidence will be in their specific circumstances. The Educational Supervisor will then write a summary of the learner's performance for the ARCP.

Once again it must be stressed that there is no single, valid, reliable test of competence and the ARCP will review all the evidence, triangulating performance measured by different instruments, before drawing conclusions about a trainee's progress.

5.2 CBD, DOPS, ICM-CEX and ACAT

Assessment by the direct observation of work is based on the belief that an expert is able to make a judgement about the quality of an expert process by watching its progress. This is the methodology of the motor vehicle driving test and there is a long history of the use of observational assessment in the accreditation of practice. Workplace-based assessments provide instantaneous feedback to the trainee.

Assessment forms are available for download from the FICM website.

5.2.1 Scoring observational assessments

The primary question on the FICM assessment form is whether the observer considers the performance satisfactory or not. The decision is based on the observer's judgement, as an expert in the field. This criterion has been adopted by the FICM rather than marking against a scale, because of the difficulty in defining other grades of performance.

If the assessor believes the performance to be satisfactory they are asked to offer feedback; both positive and negative.

If the observer rates the performance unsatisfactory they must complete a grid, which tabulates the specific areas for concern.

The feedback given to learners who perform satisfactorily is less structured. This is not believed to be very significant in the context of our training practices. The advantage of presenting an assessment that is easy to complete when work is satisfactory is overwhelming in improving compliance, and engagement with the testing regime.

5.2.2 Case-based Discussion [CBD]

The FICM has defined topics for CBD that are appropriate to all the contexts of training. These are mapped onto the CoBaTrICE competences in the Syllabus. Assessments should not be made using other topics without checking that they are appropriate, i.e. the issue is in the curriculum for the trainee's present state of training.

CBD can be used for a variety of training and assessment purposes as indicated in the curriculum section of this document. It will often focus on patient management. CBD is also used for assessing the more generic, and less clinical, knowledge and skills needed for effective practice, e.g. evidence-based practice, maintaining safety, teamwork, clinical research methodologies.

5.2.3 The ICM Mini Clinical Evaluation Exercise [I-CEX]

This is used to assess a trainee's skill in real clinical encounters with patients. It involves the assessor directly observing a trainee in a real clinical situation such as the initial assessment and treatment of a patient with sepsis in the admissions unit. It is designed to assess a variety of skills such as history

taking, examination, communication skills and clinical judgement. Suitable areas for mini-CEX assessment are detailed in the syllabus.

5.2.4 Directly Observed Procedural Skills [DOPS]

This is an assessment of practical skills and ability. The assessor directly observes the trainee undertaking a practical procedure and assesses their performance and gives feedback.

5.2.5 Multi-Source Feedback [MSF]

MSF is an objective, systematic collection of feedback of performance data, using a structured questionnaire, on an individual trainee. This is derived from a number of stakeholders in their performance and will typically include a mixture of health care professionals and possibly others.

5.2.6 Acute Care Assessment Tool [ACAT]

The ACAT is designed to assess the trainee's ability to manage a body of work over a more extended period of time. In the ICM environment this will usually be over a shift period and the assessment may focus on a variety of areas including record keeping, time management, team working, handover quality and team leadership.

5.2.7 Logbook and Portfolio

Trainees are required to keep a record of the cases that they manage. The trainee must have had a significant input into the care and management of the patient and this input should be mapped onto the major domains of the curriculum. Brief diagnostic information should also be included, for example using the ICNARC diagnostic criteria, along with an opportunity to place reflective comments in the case record. The case logbook will be part of the portfolio of evidence that the trainee will collect to demonstrate their experience and competence. In the event that assessments indicate underperformance in an area of practice the first response is to check from the logbook that the learner has had sufficient exposure to it. Lack of competence in the face of what is usually sufficient exposure is a cause for concern. See section 6.8, Data Protection, for further logbook recommendations.

5.2.8 Expanded case summaries

Trainees are required to submit 2 expanded case summaries per year of HST at local level. More information on the case summaries can be found in section 5.10 and on the FICM website. These are designed to assess the trainee's depth of knowledge in a particular area of practice and will also assess their ability to practice evidence based medicine and communicate written information in a succinct manner. They may also be used as the basis for CBDs and as evidence of competency achievement.

5.2.9 Evidence of participation and attendance at training events

Until recently evidence of attendance at a learning session was taken to be the standard for accumulation of credits in continuing medical education. Attendance does not assure that learning has occurred but it does signify compliance with an appropriate learning plan. There are a number of aspects of training which support clinical practice but are situated more peripherally such as Research Methods, Management, Teaching and Assessment. At present there is little focused assessment in these areas and significant practical difficulties lie in the way of introducing summative assessment. The FICM has at present adopted the middle ground in these areas and requires that evidence of participation in learning is presented to the ARCP. These include attendance at specific courses, evidence of presentation at local audit and research meetings and records, and feedback from teaching the trainee has delivered.

5.3 Examinations

The examinations of the FICM are an integral part of the assessment system. They enable national standards to be applied fairly for all learners irrespective of where or by whom they are trained. The exams form part of an overview of a trainee's progression and achievement. The entry criteria for the examinations require the trainee to provide validated evidence of specified knowledge, skills and attitudes in the workplace (specified in the curriculum). Examinations are part of the triangulation utilising various assessment methods relating to knowledge, skills and attitudes.

This description is an outline only and further details along with methods to ensure validity are given in the FFICM examination regulations. It should be noted that this is a new curriculum and as such the planned examination system is in a state of evolution. The information below may therefore change as the curriculum implementation process develops.

5.3.1 Overview of FFICM examinations

The exams are a high stakes assessment in two parts. They principally investigate the learner's basic science and medical knowledge concentrating on its application in practice. The examination process is subject to stringent quality control and the validity and reliability of each separate assessment within the process is scrutinised.

5.4 FFICM Primary examination

An FFICM Primary examination will be developed over the course of the next two years (2012-2014). It is envisaged that, at least initially, trainees will wish to undertake training in a specialty in addition to ICM. As such the FFICM Primary is not an absolute entry requirement for entry to higher specialist ICM training; a pass in the primary examination of one of the defined multiple core training programmes – where similar assessments of basic medical science are made – will be considered acceptable (see section 2.3). These are:

- FRCA Primary
- MRCP(UK)
- MCEM Parts A, B and C

5.4.1 Primary FFICM MCQ [Multiple Choice Questions]

This MCQ is an MMT [Machine Marked Test] examination consisting of multiple choice questions which test factual knowledge in the areas of science as related to clinical practice including: anatomy, biochemistry, physiology, pharmacology, physics, clinical measurement and data interpretation. The examination can be taken at any stage of training before ST3.

5.5 FFICM Final examination

The second part Final examination is normally to be taken during Stage 2 (ST5-6) of the training programme. A successful pass is required before progression to Stage 3 (ST7) ICM training. Eligibility to sit the FFICM Final examination is either a pass in the FFICM Primary examination or a pass in the primary examination of one of the defined core training programmes.

The examination consists of three sections; the MCQ section, OSCE and the structured oral examination SOE. Some candidates may be exempted from the MCQ section of the examination by carrying a previous pass in that section.

5.5.1 Final FFICM MCQ

This examination consists of multiple choice questions which test factual knowledge in the areas of science applied to clinical practice; resuscitation and initial management of the acutely ill patient; diagnosis, assessment, investigation, monitoring and data interpretation; disease management; therapeutic interventions and organ support; perioperative care; comfort and recovery; end of life care; paediatric care; transport; patient safety and health systems management.

The examination can be taken after the ST4 stage of training. A pass in the MCQ component of the examination can be carried forward for three subsequent sittings of the examination. However, a pass has to be achieved in all parts of the examination for the award of the FFICM.

5.5.2 Final FFICM OSCE [Objective Structured Clinical Examination]

The objective of the OSCE section is to test knowledge and skills essential to the safe practice of intensive care. Candidates will encounter eight active OSCE stations and a few rest stations may be provided. The OSCE may also include stations where the ability to communicate with relatives and staff and handle ethical and administrative problems will be tested; the ability to demonstrate ICU procedures will be tested; there may be an entire station for radiological interpretation of X-Rays, CT scans and MRI scans.

5.5.3 Final FFICM SOE [Structured Oral Examination]

The objective of the SOE section is to test knowledge in clinical science as applied to the practice of Intensive Care Medicine. Candidates will encounter active SOE stations and a few rest stations may be provided. In these sections the focus will usually be on clinical problems. Candidates will be given a brief clinical scenario which will be the focus of the clinical problem to be explored. Candidates will then be asked questions on this topic in a structured fashion. Questions will be mapped onto the individual components of the curriculum.

5.6 Results

A pass has to be achieved in all parts of the examination before the award of the FFICM. Results will be delivered to the candidates at a designated time and place after the examiners' meeting.

5.7 Exam report

A report will be distributed after every Examination to Supervisors of Training, Regional Advisors, the Panel of Examiners and Trainees. It will be prepared by the Chairman of the Board of Examiners of the FICM. It will provide feedback to potential candidates and those involved with teaching and training programmes.

5.8 Feedback

Candidates who fail the examination receive a letter several weeks after the examination detailing their performance and the sections of the examination in which they failed. In addition, the candidate's Training Supervisor will receive a telephone call (usually from the Chairman of the Examination) to discuss the candidate's performance and plan remedial action. This discussion will relate to the exam process, conduct and performance and how best to prepare again but not specific exam questions or answers.

5.9 Oral assessment

The FICM assessment system makes extensive use of oral assessment:

- Face to face examination in two parts of the FFICM;
- Elements of the I-CEX and CBD; and
- Simulation.

5.9.1 Advantages of Oral Assessment

Oral assessment:

- **Is 'Authentic'.** Case-based Discussion; OSCE and some viva voce discussions across the examination table are conducted in ways that resemble the clinical use of material. During work, colleagues require an intensivist to explain and justify a clinical decision, and an oral format for questioning allows a more realistic context for assessment.

- **Explores decision-making**. Candidates can explain the reasons for things very clearly. This applies equally to scientific understandings and to the choice between clinical alternatives. Not only can they explain their reasoning but also they can argue in favour of their choices. Written tests require that the candidate has the same understanding of the question as the examiner from a limited scenario whereas in discussion the examiner can correct any misunderstandings so that the trainee gets a fair chance to explain and defend their proposed actions. This replicates the exchanges in clinical teams.

- **Is Engaging**. Just as learners have preferred learning styles, so they have preferred assessment styles. Some candidates engage better with assessment by discussion than with written tests. Use of a variety of assessment methods allows all candidates to have some assessment in their preferred style.

- **Promotes learning**. Proper preparation for oral examinations is a powerful instructional tool. It promotes clarity of thinking and clear communication.

- **Promotes Examination Security**. Impersonation and plagiarism are hard to counter but face to face examining can be associated with good security. It would be very audacious, to appear for a high-stakes oral examination on behalf of another. If the candidate was impersonated at the written exams this could be revealed by a discrepancy between the oral, workplace and written marks.

- **Allows 'Triangulation'**. The use of a variety of assessment systems enables judgement to be made about capability by more than one method. This can confirm that a problem is real or allow the interpretation to be made that a candidate has a difficulty with the style of an assessment system – for which allowance can then be made.

Oral exams are most suitable for assessment of:

- Communication skills;
- Understanding – students can explain their knowledge and understanding;
- Problem solving, critical-thinking, clinical-reasoning and the application of knowledge – a problem can be thought through and each stage described;
- Prioritisation – learners can identify what is important and minimise less important knowledge. This is invaluable, as the trainee who knows all the answers but thinks first of rarities is well

known to clinicians, and is less effective in the workplace than the learner who sees clearly;

- Interpersonal skills. Scenarios with simulations or in real clinical situations give an opportunity for candidates to show their real interpersonal skills;
- Professional demeanour – clinical cases, whether real or simulated allow the professional persona or 'bedside manner' to be observed; and
- Personal characteristics – some oral formats enable the observer to judge manner, calmness under pressure etc.

5.10 Expanded Case Summaries

Commensurate with the planned spiral of learning in the curriculum all trainees will be expected to write selected case summaries regularly during their higher specialist ICM training. To successfully complete each ARCP then trainees will have had to submit 2 acceptable case summaries each year, after entry to higher specialist training.

It is envisaged that the standard of these case summaries will reflect the stage of training that the trainee is at (see section 6.1 and *Part II* for training level descriptors):

Training Stage	Training Years	No. of Summaries	Level of Summaries	Standard of Expanded Case Summaries
Stage 1	CT1-2	0	*N/A*	*N/A*
	ST3-4	4 (2 per year)	2	Basic case reports.
Stage 2	ST5-6	4 (2 per year)	3	More evidence of critical appraisal will be required with some of the clinical management issues and controversies being covered
Stage 3	ST7	2	4	High quality appraisals perhaps including case series which illustrate differences in management options. Cases are expected to contain references to back up the written statements

The case summaries will be evaluated locally as part of the ARCP programme and it is expected that an assessor from outside the region will be part of this process. In addition, a random number (up to 10%) of these summaries will be assessed centrally. Details for the submission of the case summaries are given on the FICM website.

The purpose of the case summaries is to allow the candidate to demonstrate critical thinking, knowledge of recent literature in the field of Intensive Care Medicine, critical appraisal and a sound approach to evidence-based medicine.

6. Training progression and the ARCP process

Both trainees and trainers need to ensure that training is both comprehensive and that progression of training is occurring at a satisfactory rate. The curriculum uses a Training Progression Grid (see *Part II*), which includes the CoBaTrICE domains, to both define and measure progress. This is combined with a simple and intuitive measure of level of competence which uses the intensity of supervision required to identify achievement.

6.1 Competency level descriptors

The level descriptors are as follows (these can also be found in *Part II* of this curriculum):

Level	Task orientated competence	Knowledge orientated competence	Patient management competence
1	Performs task under direct supervision.	Very limited knowledge; requires considerable guidance to solve a problem within the area.	Can take history, examine and arrange investigations for straight forward case (limited differential diagnosis). Can initiate emergency management and continue a management plan, recognising acute divergences from the plan. Will need help to deal with these.
2	Performs task in straightforward circumstances, requires help for more difficult situations. Understands indications and complications of task.	Sound basic knowledge; requires some guidance to solve a problem within the area. Will have knowledge of appropriate guidelines and protocols.	Can take history, examine and arrange investigations in a more complicated case. Can initiate emergency management. In a straightforward case, can plan management and manage any divergences in short term. Will need help with more complicated cases.
3	Performs task in most circumstances, will need some guidance in complex situations. Can manage most complications, has a good understanding of contraindications and alternatives.	Advanced knowledge and understanding; only requires occasional advice and assistance to solve a problem. Will be able to assess evidence critically.	Can take history, examine and arrange investigations in a more complex case in a focused manner. Can initiate emergency management. In a most cases, can plan management and manage any divergences. May need specialist help for some cases.
4	Independent (consultant) practice.	Expert level of knowledge.	Specialist.

In order to provide both a measure of progress to trainees and trainers and also to provide an indication of where in the training programme individual competencies are best achieved the FICM has produced a Training Progression Grid (see *Part II*). By the completion of the ICM training programme all trainees will be expected to have achieved level 4 competency in the majority of the CoBaTrICE competences, as detailed on the Grid. This provides ARCP panels with guidance about the progress and evidence of progress expected for individual trainees.

The purpose and conduct of the ARCP was first described in the Gold Guide published in 2007[23]. Although formal review of the guide was not due until 2012 there have been 2 further editions published in 2008 and 2009. However there have been no amendments to section 7: Progressing as a Specialty Registrar. The ARCP has two objectives:

> "To consider and approve the adequacy of the evidence and documentation provided by the trainee."

And

> "Provided that adequate documentation has been presented, to make a judgement about the trainee's suitability to progress to the next stage of training or confirm training has been satisfactorily been completed."

Hence the ARCP is an assessment of the *documentary evidence* submitted by the trainee. This should include, as a minimum, a review of the trainees' portfolio in the form of a structured report from the Educational Supervisor (ES). Assessment of the *trainee* usually occurs in the workplace and nationally in the form of college/faculty examinations. The outcome of these assessments should be contained in the portfolio. Appraisal and annual planning are separate processes but can be combined with the ARCP as long as the outcome of the panel is decided prior to seeing the trainee. It may be possible for the ES to make a recommendation to the panel on the structured report.

6.2 The Educational Supervisor's report

The Educational Supervisor's structured report is a vital and essential piece of information which informs the ARCP. An ES report template is available on the FICM website. Whatever the style of report used its content must reflect the learning agreement and objectives established at the initial appraisal. There must be appropriate supporting evidence available to the ES and this must be clearly documented in the report. If there has been any modification to the initial learning agreement during the relevant period of training the reasons for this must be included.

The Gold Guide stipulates the minimum standard required but it is important to include other evidence to encourage and promote excellence. Log books, audit reports, research and publications are assessments of experience and are valid records of progress. The availability of a checklist may assist the ES when assessing the portfolio so that any deficiencies are easily identified (an updated registration form, Form R, is one of the mandatory documents). They should also be able to suggest an appropriate outcome having reviewed and checked the documentation. The report must be discussed with the trainee prior to submission so that they are aware of any concerns regarding their training progress, and trainees will receive feedback as part of the ARCP process.

6.3 The ARCP panel

There must be a minimum of 3 panel members, one of whom must be the Postgraduate Dean (or their deputy) or Training Programme Director. Two panel members will need to be academic representatives (one the same specialty, one from another specialty) if academic training is to be assessed. Where there is likely to be an unfavourable outcome the presence of a senior deanery representative is essential. Depending on how the process is managed, for example if the trainee is going to be seen immediately after the document review and outcome decision, it will be impossible to give adequate notice of an

[23] *A Guide to Postgraduate Specialty Training in the UK*, Modernising Medical Careers, 1st Edition, June 2007.

unfavourable outcome to the deanery therefore it may be appropriate to have the PG Dean represented on all panels. There should also be a representative from an employing authority.

As decisions from the panel have important implications for the public and the individual trainee there should be external scrutiny of its decisions from two sources:

1. A lay member to "ensure consistent, transparent and robust decision making." The deanery is responsible for arranging lay representation and will ensure appropriate training is provided.

2. An external trainer from the same specialty but outside the specialty training programme or school.

The lay member and external trainer are required to review the evidence available for all unfavourable outcomes and a random 10% of all satisfactory outcomes. Depending on the size of the specialty and the way the process is managed these two panel members may not be required to be present for the whole sitting. The organisation of this is devolved to the individual specialty.

All assessors must be appropriately trained. The deanery will define what training is essential. Panel members, including lay and external representatives, must have received training in Equality and Diversity and update this every three years.

6.4 The ARCP process

The trainee should be given at least 6 weeks' notice of the panel meeting date so that they have adequate time to gather together their documentation and get the ES report completed. If this is not an electronic process arrangements must be made for the information to be available to the panel.

The panel will review the evidence provided and decide on an outcome (this may have been recommended by the ES).

All trainees with an unsatisfactory outcome must then be seen by the panel including the lay and external member. The documentary evidence from 10% of all satisfactory outcomes must be reviewed by the lay and external representatives. If all trainees are to be seen following the outcome decision the panel should decide how best to utilise their lay/external members.

Where there is an unsatisfactory outcome the meeting with the trainee is to agree the objectives that need to be met in order to produce a satisfactory outcome and also to define the timescale. This information must be shared with the trainee's employer and the Director of PGME.

The provisional CCT date should be reviewed and any possible change documented.

6.5 Independent Appraisal

Evidence to inform the ARCP must include a structured written appraisal by the Educational Supervisor. Given the team nature of ICM work it is recommended that this report draws on the views of the multi-disciplinary team during the trainee's placement.

6.6 Trainees in difficulty

Doctors in training can encounter either personal or professional problems which may affect their performance. With the introduction of personal development plans, appraisal, annual assessment, learning agreements and clinical governance, trainees who struggle to achieve their goals within the

expected timescale can be more easily identified and may require support during their career. *Whatever the reason for difficulty it should be identified as early as possible.*

Deaneries will have a clear strategy for dealing with such situations encompassing the spectrum of performance difficulties. Depending on the level of risk the Educational Supervisor will require a variable degree of support. It is highly recommended that all those involved in the education and clinical supervision of trainees are aware of their local strategy to ensure appropriate support can be provided to the trainee and that patient safety is maintained. In situations where trainees appeal against assessment or other decisions, and informal resolution is not possible then the process described in the Gold Guide will be followed[24].

6.7 Training portfolio

All trainees must keep a portfolio of training experience as a record of progress and as evidence of achievement of competencies. The FICM is developing an electronic portfolio which will completely replace the previous educational training record. Until this is available trainees must keep the following information as a paper based record. In the transition period from paper to electronic records either system will be acceptable but trainees should remain with one system throughout training.

1	Summary of Personal Details
2	a) Previous experience before starting ICM CCT training b) Orientation to the Unit c) Record of appraisals d) Record of educational activities e) Record of research activity f) Record of audit activity g) Attendance at formal education events
3	a) Record of induction meeting b) Training agreement c) Record of mid-point review d) End of attachment review e) Post Evaluation Tool (PHEEM questionnaire)
4	Logbook Summary Cases Procedures Airway skills
5	a) Workplace-based assessment documentation b) CoBaTrICE competency progression spreadsheet c) ARCP dates and outcomes d) ALS certificate e) Case summaries

[24] *A Reference Guide for Postgraduate Specialty Training in the UK*. Modernising Medical Careers. Fourth edition, June 2010.

6.8 Data Protection

The Data Protection Act 1998 governs the collection, retention, and transmission of information held about living individuals and the rights of those individuals to see information concerning them. The Act also requires the use of appropriate security measures for the protection of personal data. Special treatment is required for the processing of 'sensitive data' (e.g. religion, race, health etc). All doctors must be aware of the implications of this legislation for their work.

The legislation is not limited specifically to data held electronically; it applies to any personal information, which is recorded in a system that allows the information to be readily accessible (e.g. a training logbook).

6.8.1 Use of patient ID in logbooks

Patients must not be individually identifiable from the patient ID used. The GMC Confidentiality Guidance (glossary) defines anonymised data as:

> "Data from which the patient cannot be identified by the recipient of the information. The name, address and full postcode must be removed together with any other information which, in conjunction with other data held by or disclosed to the recipient, could identify the patient.'[25]

The FICM recommends that trainees only record the age (not date of birth) and sex of patients and that no other unique numbers are retained.

[25] http://www.gmc-uk.org/guidance/ethical_guidance/confidentiality.asp

7. Supervision and Feedback

7.1 Assessors

The FICM, in collaboration with the Deaneries recruits, appoints and trains both FICM Tutors and Regional Advisors. Their roles include assessment of trainees and an assurance that trainee assessments are being undertaken to a uniform standard. Assessments within the ICM programme are conducted by consultants, specialty doctors and trainees. All assessors are required to have completed training in the use of the workplace based assessment tools. Training in using the assessment tools is provided by deaneries, locally within Trusts and when necessary from the colleges as part of their Educator programmes.

7.2 Appointment of trainers

This document sets out criteria for the appointment of trainers, including extending recognition as trainers to those who have been appointed *other* than by standard NHS Advisory Appointments Committees [AAC]. It also takes into account that some postgraduate training may have to be delivered in hospitals outside the NHS.

7.3 Training in the NHS

The GMC is responsible for approving posts and programmes for training. Clinical training is ordinarily delivered in NHS hospitals by consultants, approved staff and associate specialist [SAS] grades, [26] and by senior trainees. Senior educators/clinicians with responsibility for education and training are joint appointments by the FICM and Deanery. Trainers are supported by RAs and FICM Tutors appointed with input from the Deanery and hospital management by the FICM and by Educational Supervisors appointed locally.

The example of trainers and teachers has a powerful influence upon the standards of conduct and practice of trainees. [27] It follows that all those involved in training and teaching should recognise and meet their responsibilities. [28] In particular:

- Consultant and SAS doctors involved in the training or education of trainees should be aware of the objectives of the training programme and participate in its optimal construction and delivery
- Consultants, SAS grades and others involved in teaching must fulfil the CPD requirements for the clinical appraisal process
- Trainers and teachers should take steps to acquire the skills of a competent teacher[29]
- All should fulfil the essential and fulfil or at least aspire to the desirable criteria (see below).

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[26] *Non consultant career grade doctors*. RCoA *Bulletin* 2001: 9; p.407

[27] *Good Medical Practice*, 'Teaching and training, appraising and assessing', GMC, 2009, paragraph 15.

[28] *Ibid*, paragraph 16.

[29] *Ibid.*

7.3.1 Consultant trainers

- The AAC committee at which the Colleges are represented is a check on the suitability of a consultant as a trainer.
- Consultant trainers in the NHS must be listed in the Specialist Register and have been appointed to a substantive NHS consultant, University, or Defence Medical Services post by a properly constituted AAC. Subject to the local Faculty Tutor's agreement, expressed by matching trainees to the consultant's training capacity, recognition of such appointees as trainers is automatic.
- Consultant trainers must comply with the GMC Standards for Trainers, full compliance with which was required from January 2010.

7.3.2 SAS trainers

The FICM encourages FICM Tutors to identify SAS doctors with aptitude and to nominate them as teachers, specifying their areas of expertise. Those who undertake teaching must have opportunity to acquire the skills of a competent trainer.

7.3.3 Trainees as trainers

By the time they complete their CCT programme trainees must have learnt to assume responsibility for the supervision of more junior trainees. As part of their preparation for becoming a consultant, senior trainees should have the opportunity to contribute to the organisation and delivery of formal training under the supervision of the Faculty Tutor or other designated trainers as identified in this curriculum.

7.3.3 Trainers in NHS Foundation Hospitals and the Independent Sector

NHS consultants and SAS doctors who have been recognised as trainers, as described above, carry their personal recognition when working outside their NHS base. Consultants and SAS doctors appointed to posts in Foundation Trusts that do not use college representation for AACs, to Independent Sector Treatment Centres or to Independent Hospitals do *not* have automatic recognition as trainers. In such instances the FICM will offer recognition in a personal capacity:

- **Foundation Trusts:** In the case of Foundation Trusts when no college representation has been used during selection, the FICM delegates its authority to the local FICM Tutor.
- **ISTCs:** In ISTCs, private hospitals or any other institution without a FICM Tutor, the FICM delegates this authority to the local RA or Deputy.

In both instances the following criteria[30] should be used as guidance for recognition, which should follow a meeting between the FICM Tutor or RA and the consultant.

7.4 Criteria for appointment as a trainer

Essential criteria:

- The trainer's employing institution *must* be integrated into the local Schools of ICM, Anaesthesia, Medicine, Emergency Medicine and Surgery.
- Willingness to teach and commitment to deliver "hands on" teaching and training including preoperative and postoperative care.
- Regular clinical commitment (e.g. in operating theatres, clinics, Intensive Care Units).

[30] The criteria are common to all trainers; those who have already gained recognition should use them as a guideline for maintaining their skills as trainers.

- Listing in the GMC Specialist Register.
- Compliance with current GMC revalidation requirements.
- Successful completion of annual assessment or appraisal by a consultant intensivist.
- Robust evidence of recent continued CPD normally based on the previous two years.
- Being up-to-date and supported in a post with protected time for further CPD.
- Familiarity with the assessment procedures and documentation of the knowledge, skills, attitudes and behaviour components of competency based training.
- Willingness to continuously assess the trainee throughout the appointment and to complete trainees' assessment forms on a regular basis as necessary.
- Participation in audit.
- Safeguarding trainees' attendance at core curriculum teaching meetings.
- Ability to detect the failing trainee.

Desirable criteria:

- Successful completion of a '*Training the Trainers*' course or equivalent
- Ability to use educational technology
- Familiarity with teaching evidence-based medicine
- Ability to provide remedial support to the trainee in difficulty
- Willingness to guide and stimulate trainees to carry out audit and, if appropriate, clinical research
- Willingness to ensure that the volume and content of training lists and other sessions reflect the additional time required for training
- Willingness to mentor individual trainees

7.5 Supervision

The critical nature of ICU work necessitates very close supervision of trainees. However, this must be balanced against the need for trainees to develop towards independent, expert practitioners. As always patient safety is the most important priority and must override any other apparent training needs.

7.5.1 Clinical supervision

Every trainee must, at all times, be responsible to a nominated consultant. The consultant must be available to advise and assist the trainee as appropriate. Sometimes this will require the consultant's immediate presence but on many occasions less direct involvement will be needed. Supervision is a professional function of consultants and they must be able to decide what is appropriate for each circumstance in consultation with the trainee.

The safety of an individual hospital's supervision arrangements is the concern of the local department in conjunction with the hospital management; it is necessary for them to agree local standards and protocols that take account of their particular circumstances.

7.5.2 Educational supervision

Every trainee must have a nominated Educational Supervisor to oversee their individual learning.

8. Managing Curriculum Implementation

8.1 Roles and Responsibilities

Competency based training relies on WPBAs made during clinical service. The responsibility for the organisation, monitoring and efficacy of this training and assessment is shared by a variety of authorities:

- **The GMC** is responsible for approving programmes of training and training capacity
- **The FICM** is responsible for:
    - Advising the GMC on the competencies/learning outcomes in training
    - Advising the Postgraduate Deans on the arrangements for organising and monitoring the in-service training provided by schools and hospitals
    - Evaluating the training of individual trainees and recommending them to the GMC for the award of CCTs
- **The Postgraduate Dean** is responsible:
    - To the GMC for the quality management of the training programme
    - For the overall training arrangements in each Trust. The Clinical Tutor/Director of Medical Education acts as the Dean's officer within the trust and has overall responsibility for the educational environment
    - For ensuring that the ARCP process is organised correctly
    - For Quality Assurance of the training programme, including feedback from trainees
- **Schools of Intensive Care Medicine, Anaesthesia, Medicine, Emergency Medicine and Surgery** in conjunction with **local Specialty Training Committees** are responsible for:
    - The administrative organisation of trainee placements/rotations in the training programme
    - Monitoring the training programme
    - Providing Annual Reports to the Postgraduate Dean
    - The administrative organisation of ARCPs
    - Working with Clinical Directors to ensure satisfactory local arrangements are in place to ensure in-service training is delivered in accordance with the principles adopted by the DH (in regard to rota compliance), the GMC, the Colleges and the Postgraduate Dean

    Schools of ICM will be formed by Deaneries. The schools of ICM will need to collaborate closely with the local Schools of Anaesthesia, Medicine and Emergency Medicine to facilitate training programmes.
- **Specialist Training Committees [STCs]** are appointed by the deanery with input from RAs and FICM Tutors and trainees. These will oversee training programmes, assessment, ARCP process and trainee progression including managing trainees in difficulty in conjunction with the deanery.
- **Training Programme Directors [TPDs]** are appointed by deaneries and organise training programmes to ensure that all units of training are covered
- **Regional Advisors [RAs]** are appointed by the FICM, and provide advice to their Deanery on the quality assurance of training posts. RAs provide pastoral care and career advice for ICM trainees and represent the policies and views of the FICM in all relevant matters within their region

- **FICM Tutors** are appointed locally and ratified by the FICM. They are responsible for local training and assessment.

- **Educational Supervisors** are appointed locally according to GMC/deanery rules. They are responsible for individual trainees training and assessment responsible for ensuring an individual trainee has an agreed educational plan, that this is delivered, that the appropriate assessments are carried out and that the trainee receives regular educational and workplace appraisals**.**

- **Clinical Supervisors** are appointed locally according to GMC/deanery rules, and are responsible for supervision of training and providing feedback to individual trainees. Clinical Supervisors are trainers who are selected and appropriately trained to be responsible for overseeing a specified trainee's clinical work and providing constructive feedback during a training placement; in ICM training, Clinical Supervisors will normally be the lead for specific units of training. Some training schemes appoint an Educational Supervisor for each placement; if this is in a hospital that only delivers one unit of training, the roles of Clinical and Educational Supervisor may be merged[31].

- **Consultant/SAS trainers:** All consultants/SAS intensivists who have any contact with trainees (which includes providing senior support and cover for out of hours duties) have a responsibility for providing appropriate training, supervision and assessment. They must comply with the GMC regulations for trainers. All consultants/SAS intensivists who have clinical contact with ICM trainees are responsible for providing training and assessment and must comply with the GMC regulations for trainers.

8.2 Quality Assurance of training

Evidence is needed to ensure that the quality framework for ICM training is being maintained. The key source of this data will be the Deaneries. The evidence will include an annual report from each Deanery that self-assesses against GMC standards and requirements. Other evidence will be annual specialty data from the Colleges and the Faculty of Intensive Care Medicine, other healthcare organisations, from the national trainee and trainer surveys and the approvals work.

All Colleges and the Faculty of Intensive Care Medicine will be expected to submit an annual report to the GMC. This report will provide an essentially speciality perspective, a national overview of the speciality and training. The analysis of such data and reports by the Colleges and the Faculty will ensure that speciality-specific issues and context are fully taken on board by the GMC.

The Colleges and the Faculty will need to work closely with the Deaneries to ensure that all appropriate information is shared to help inform the QM and QC and to ensure annual reporting to the GMC is accurate and informed.

8.2.1 Background

In April 2010 the Postgraduate Medical Education and Training Board [PMETB] was merged with the General Medical Council [GMC]. Through the merger the GMC has acquired the legal functions in relation to the regulation of speciality training. These functions include setting standards for speciality training and providing quality assurance of the delivery against those standards.

The GMC has responsibility for the quality assurance of speciality education and training, while Postgraduate Deaneries will be accountable for the quality of the postgraduate medical education [PGME] for their trainees. The GMC recognises that the trainee's experience of PGME is that set within

[31] *Quality Framework Operational Guide,* GMC, April 2010.

the health services, whatever the setting. There are three fundamental levels of quality within the framework: quality assurance, quality management, and quality control and the Framework [QF] has five elements; standards incorporating approval; shared evidence; surveys; responses to concerns; and visits to Deaneries. These have been agreed and are applicable until further notice. This QF is supplemented by a detailed *Operational Guide* published originally in January 2008 which provides detail of "how to" and explains the detail of the processes and elements of the QF for those with an active role in speciality training. The *Operational Guide* is a "live" document that changes in response as the QF is implemented. The GMC expects that the processes and protocols developed for the QF will be developed and refined through experience and feedback.

8.2.2 Quality Assurance

The GMC will undertake planned and systematic activities to provide public confidence that the specialty of Intensive Care Medicine satisfies given requirements for quality. It will do this using the principle of peer review of each Deanery and local education provider's self-assessment in the annual Deanery Report against published standards. GMC approval of quality of training comes through:

1. Approval of the speciality of Intensive Care Medicine curricula
2. Approval of the assessment systems blueprinted against the approved curricula
3. Post and programme approval has been obtained

Ongoing approval is retained through quality assurance by:

a. Annual reports from Deaneries
b. GMC visits to the Deaneries
c. GMC –triggered visits or other responses to concerns
d. Annual Royal College and Faculty summaries to confirm that the curriculum and associated assessment systems continue to meet the GMC standards and requirements
e. Verification and confirmation through the GMC national surveys and other evidence
f. Re-approval of curricula and associated assessment systems

8.2.3 Quality Management

This refers to the arrangements by which the Postgraduate Deaneries discharge their responsibilities for maintenance of the standards and quality of specialty training. They must satisfy themselves that local education and training providers are meeting the GMC standards through robust reporting and monitoring mechanisms. The development, implementation and evaluation of the specialty of Intensive Care Medicine will be achieved through active co-operation between the Royal Colleges, the Faculty of Intensive Care Medicine and the Deaneries and is a partnership between those organisations. The quality management from Deaneries in conjunction with the Royal Colleges and the Faculty of Intensive Care Medicine will have a form of local visiting with the goal of improving the education and training opportunities which will enable local problem solving as well as dissemination of notable practice. All "visits" will be targeted and proportionate to the concerns identified prior to the visit.

8.2.4 Quality Control

This is defined as the arrangements (procedures, organisation) within local education providers (Health Board, NHS Trusts, Independent Sector) that ensure postgraduate medical trainees receive education and training that achieves local, national and professional standards.

The organisations responsible for this are local education providers (Health Boards, NHS Trusts, and the Independent Sector) and any other service provider that hosts and supports trainees. These organisations will have a Board level officer accountable for this function. The Deaneries are

accountable to the GMC for ensuring the quality of Intensive Care Medicine Training; however, the day-to-day delivery is at the Local Education Provider level. Structures may vary regionally, but each organisation must take responsibility so that it can demonstrate the GMC's standards and requirements are being achieved. The Postgraduate Dean and the Deaneries will provide support to ensure that the systems of delivery and quality control are consistent across the Local Education Providers nationally.

8.2.5 Post and Programme Approval

The GMC is the sole authority responsible for the approval of posts, courses and programmes, including application for re-approval of expired posts and programmes. All posts, courses and programmes (full-time and less than full-time) intending to lead to the award of a CCT in Intensive Care Medicine must be prospectively approved by the GMC. This includes academic integrated pathways, and periods spent out of programme for research or other training and learning opportunities. Deaneries, along with the Colleges and the Faculty will be expected to monitor training at a local level.

8.2.6 Curriculum and assessment approval

The GMC will ensure that that College/Faculty ICM speciality training meet GMC standards and that there is consistency in standards across other specialities. The GMC will approve ICM Speciality training leading to the award of a CCT. All curricula change and development will therefore need to be reviewed and approved by the GMC.

Full details of the Quality Framework for Speciality Training as supervised by the GMC can be found on the GMC website.[32]

[32] http://www.gmc-uk.org/education/postgraduate/quality.asp.

9. Equality and Diversity

Equality of opportunity is fundamental to the selection, training and assessment of intensivists. It seeks to recruit trainees regardless of race, religion, ethnic origin, disability, age, gender or sexual orientation. Patients, trainees and trainers and all others amongst whom interactions occur in the practice of ICM have a right to be treated with fairness and transparency in all circumstances and at all times. Equality characterises a society in which everyone has the opportunity to fulfil his or her potential. Diversity addresses the recognition and valuation of the differences between and amongst individuals. Promoting equality and valuing diversity are central to the ICM curriculum. Discrimination, harassment or victimisation of any of these groups of people may be related to: ability, age, bodily appearance and decoration, class, creed, caste, culture, gender, health status, relationship status, mental health, offending background, place of origin, political beliefs, race, and responsibility for dependants, religion and sexual orientation.

The importance of Equality and Diversity in the NHS has been addressed by the Department of Health in England in 'The Vital Connection'[33], in Scotland in 'Our National Health: A Plan for Action, A Plan for Change'[34] and in Wales by the establishment of the NHS Wales Equality Unit. These themes must therefore be considered an integral part of the NHS commitment to patients and employees alike. The theme was developed in the particular instance of the medical workforce in 'Sharing the Challenge, Sharing the Benefits – Equality and Diversity in the Medical Workforce'[35]. Furthermore, Equality and Diversity are enshrined in legislation enacted in both the United Kingdom and the European Union. Prominent among the relevant items of legislation are:

- Disability Discrimination Act 2005;
- Disability Discrimination [Public Authorities][Statutory Duties][Amendment] Regulations 2008;
- Employment Act 2002;
- Employment Relations Act 1999;
- Employment Rights Act 1996;
- Equality Act 2006 [except s25,26,33,43,Part 2, s81 and Part 4];
- Equality Act 2010;
- European Union Employment Directive and European Union Race and Ethnic Origin Directive;
- Flexible Working [Eligibility, Complaints and Remedies] Regulations 2002;
- Human Rights Act 1998;
- Indirect Discrimination and Burden of Proof Regulations 2001;
- Maternity and Paternity Leave Regulations 1999;
- Maternity and Parental Leave [Amendment] Regulations 2001;
- Maternity and Parental Leave etc and the Paternity and Adoption Leave [Amendment] Regulations 2006;
- Maternity and Parental Leave etc and the Paternity and Adoption Leave [Amendment] Regulations 2008;
- Part Time Workers Regulations 2000;
- Race Relations [Amendment] Act 2000;
- The Race Relations Act 1976 [Amendment] Regulations 2003;

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[33] The Vital Connection: An Equalities Framework for the NHS: DH, April 2000.

[34] Our National Health: A Plan for Action, A Plan for Change: Scottish Executive, undated.

[35] Sharing the Challenge, Sharing the Benefits – Equality and Diversity in the Medical Workforce: DH Workforce Directorate, June 2004.

- Race Relations Act 1976 [General Statutory Duty] Order 2006;
- Race Relations Act 1976 (Amendment) Regulations 2008;
- Special Educational Needs and Disability Act 2001; and
- Work and Families Act 2006

It is therefore considered essential that all persons involved in the management and delivery of training are themselves trained and well versed in the tenets of Equality and Diversity.

As part of their professional development trainees will be expected to receive appropriate training in Equality and Diversity to the standards specified by the GMC[36] and to apply those principles to every aspect of all their relationships. The delivery of this training is the responsibility of the Postgraduate Dean. A record of completion of this training must be held in the trainee's portfolio. The benefits of this training are:

- To educate the trainee in the issues in relation to patients, carers and colleagues and others whom they may meet in a professional context;
- To inform the trainee of his or her reasonable expectations from the training programme; and
- To advise what redress may be available if the principles of the legislation are breached

[36] *Generic Standards for Training,* GMC, April 2010.

Appendix 1: Abbreviations

The below is a list of abbreviations commonly used throughout this curriculum document:

Abbreviation	Term
ACCS	Acute Care Common Stem
CAT	Core Anaesthetic Training
CCT	Certificate of Completion of Training
CoBaTrICE	Competency Based Training programme in Intensive Care Medicine for Europe
CMT	Core Medical Training
CT	Core Training
EM	Emergency Medicine
ES	Educational Supervisor
ESICM	European Society of Intensive Care Medicine
FICM	Faculty of Intensive Care Medicine
FICMTAC	FICM Training & Assessment Committee
FTSTA	Fixed Term Specialty Training Appointment
GMC	General Medical Council
HDU	High Dependency Unit
HST	Higher Specialist Training
IBTICM	Intercollegiate Board for Training in Intensive Care Medicine
ICM	Intensive Care Medicine
ICS	Intensive Care Society
ICTPICM	Intercollegiate Committee for Training in Paediatric Intensive Care Medicine
ICU	Intensive Care Unit
MCQ	Multiple Choice Question
MMT	Machine-Marked Test
OSCE	Objective Structured Clinical Examination
PGME	Postgraduate Medical Education
SBA	Single Best Answer
SOE	Structured Oral Examination
STP	Structured Training Programme
StR	Specialty Registrar
TPD	Training Programme Director
WPBA	Workplace-based assessment

Appendix 2: Curriculum and Examination development group

The FICM wishes to gratefully acknowledge the efforts of the following contributors in the creation of the *CCT in Intensive Care Medicine* curriculum and assessment system:

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